



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0792; Project Identifier AD-2020-00593-G; Amendment 39-21840; AD 2021-24-19]

RIN 2120-AA64

Airworthiness Directives; DG Flugzeugbau GmbH Gliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all DG Flugzeugbau GmbH Model DG-500MB and DG-1000M gliders with a Solo Kleinmotoren GmbH Solo Model 2625 02i engine installed. This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as an error in the engine control unit (ECU) software. This AD requires updating the ECU software. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Solo Kleinmotoren GmbH, Postfach 600152, D71050 Sindelfingen, Germany; phone: +49 703 1301-0; fax: +49 703 1301-136; email: aircraft@solo-germany.com; website: <https://aircraft.solo.global/gb/>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816)

329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0792.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0792; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all DG Flugzeugbau GmbH Model DG-500MB and DG-1000M gliders with a Solo Kleinmotoren GmbH Solo Model 2625 02i engine installed. The NPRM published in the *Federal Register* on September 17, 2021 (86 FR 51838). The NPRM was prompted by MCAI originated by the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD 2020-0056, dated March 13, 2020 (referred to after this as “the MCAI”), to address an unsafe condition on Solo Kleinmotoren GmbH Solo Model 2625 02 engines, variation 02i with electronic fuel injection, installed on but not limited to Binder Motorenbau, DG-Flugzeugbau, and Schempp-Hirth powered sailplanes (gliders). The MCAI states:

An error was found in the ECU affected SW [software] that can cause brief injection of fuel into one cylinder when the ECU is activated.

This condition, if not corrected, could increase the time needed to (re)start the engine in flight, possibly resulting in reduced control of the powered sailplane.

To address this potential unsafe condition, SOLO Kleinmotoren GmbH, together with the ECU manufacturer [sic], developed an ECU SW update and issued the SB [service bulletin] accordingly, providing installation instructions.

For the reason described above, this [EASA] AD requires an update of the ECU software.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0792.

The Model 2625 02i engine does not have an FAA type certificate. For Model DG-1000M gliders, this engine is part of the glider type certification. For Model DG-500MB gliders, this engine may be installed as a Model 2525 02 engine modified with a fuel injection system and re-identified as a Model 2625 02i engine.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR part 51

The FAA reviewed Solo Kleinmotoren GmbH Service Bulletin No. 4600-11, Ausgabe 1 (English translation: Issue 1), dated August 19, 2019. This service information specifies procedures for updating the ECU software to a version that fixes a software error found in previous ECU software versions. This service information is reasonably

available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 4 gliders of U.S. registry. The FAA estimates that it would take about 2 work-hours per glider to comply with the requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, the FAA estimates the cost of this AD on U.S. operators to be \$680 or \$170 per glider.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. For the reasons discussed above, I certify that this AD. For the reasons discussed above, I certify this AD.

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-24-19 DG Flugzeugbau GmbH: Amendment 39-21840; Docket No. FAA-2021-0792; Project Identifier AD-2020-00593-G.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to DG Flugzeugbau GmbH Model DG-500MB and DG-1000M gliders, all serial numbers, certificated in any category, with a Solo Kleinmotoren GmbH Solo Model 2625 02i engine installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 7300, Engine Fuel and Control.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as an error in the engine control unit (ECU) software. The FAA is issuing this AD to prevent an injection of fuel into one cylinder when the ECU is activated. The unsafe condition, if

not addressed, could result in difficulty starting the engine and reduced control of the glider.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 3 months after the effective date of this AD, update the ECU software to software version V517 Revision 8 in accordance with the Actions in Solo Kleinmotoren GmbH Service Bulletin No. 4600-11, Ausgabe 1 (English translation: Issue 1), dated August 19, 2019.

(2) As of the effective date of this AD, do not install ECU software version V517 Revision 7 or earlier on any glider with a Solo Kleinmotoren GmbH Solo Model 2625 02i engine.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD or email: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2020-0056, dated March 13, 2020, for more information. You may examine the EASA AD in the AD

docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0792.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Solo Kleinmotoren GmbH Service Bulletin No. 4600-11, Ausgabe 1 (English translation: Issue 1), dated August 19, 2019.

Note 1 to paragraph (j)(2)(i): This service information contains German to English translation. EASA used the English translation in referencing the document from Stemme AG. For enforceability purposes, the FAA will cite the service information in English as it appears on the document.

(ii) [Reserved]

(3) For service information identified in this AD, contact Solo Kleinmotoren GmbH, Postfach 600152, D71050 Sindelfingen, Germany; phone: +49 703 1301-0; fax: +49 703 1301-136; email: aircraft@solo-germany.com; website: <https://aircraft.solo.global/gb/>.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on November 18, 2021

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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